Los Angeles / Oxnard

Marine Weather Program

Ryan Kittell









What To Expect Today

- About Us
- Forecast & Observations
- How to Receive Our Information



















125 Offices including Alaska (3), Hawaii, Guam, Samoa, Puerto Rico Several National Centers – Including NDBC (MS) and OPC (MD)

Area We Cover



Mission

The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the **protection of life** and property and the enhancement of the national economy.

Integrated Decision Support Services (IDSS)

Forecasts

Warnings

Observations





Routine Forecasts

Coastal Waters Forecast (CWF)

.SYNOPSIS FOR SOUTHERN CALIFORNIA COAST AND SANTA BARBARA CHANNEL INCLUDING THE CHANNEL ISLANDS NATIONAL MARINE SANCTUARY AND NATIONAL PARK...

AT 15Z...OR 8 AM PDT...A 1024 MB HIGH WAS 600 NM W OF POINT CONCEPTION...AND A 1004 MB LOW WAS NEAR LAS VEGAS. MODERATE TO STRONG W TO NW FLOW WILL CONTINUE THROUGH TONIGHT. A LARGE SOUTHERLY SWELL WILL AFFECT THE COASTAL WATERS THROUGH THE WEEKEND.

PZZ655-192230-

INNER WATERS FROM POINT MUGU TO SAN MATEO PT. CA INCLUDING SANTA CATALINA AND SANTA BARBARA ISLANDS-

844 AM PDT THU MAY 19 2011

.TODAY...N WINDS 5 TO 10 KT IN THE MORNING...BECOMING W TO NW 10 TO 20 KT IN THE AFTERNOON. WIND WAVES 1 TO 3 FT. MIXED SWELL W 3 TO 5 FT AT 9 SECONDS AND S 4 TO 5 FT AT 18 SECONDS. PATCHY FOG IN THE MORNING.

.TONIGHT...NW WINDS 10 TO 20 KT IN THE EVENING...BECOMING SE 5 TO 10 KT OVERNIGHT. WIND WAVES 1 TO 3 FT. MIXED SWELL W 3 TO 5 FT AT 9 SECONDS AND S 4 TO 5 FT AT 17 SECONDS.

.FRI...S WINDS 5 TO 10 KT...BECOMING W 15 TO 25 KT IN THE AFTERNOON. COMBINED SEAS 4 TO 6 FT DOMINANT PERIOD 9 SECONDS.

.FRI NIGHT...W WINDS 15 TO 25 KT...BECOMING 5 TO 10 KT AFTER MIDNIGHT. COMBINED SEAS 4 TO 6 FT. PATCHY FOG AFTER MIDNIGHT.

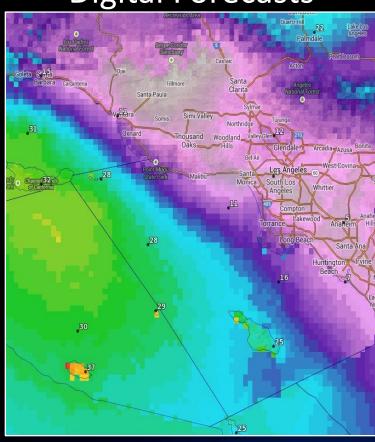
.SAT...WINDS VARIABLE 10 KT OR LESS. WIND WAVES 2 FT OR LESS. MIXED SWELL W 2 TO 4 FT AND S 3 TO 4 FT. PATCHY FOG IN THE MORNING.

SWELL W 2 TO 4 FT AND S 3 TO 4 FT. PATCHY FOG IN THE MORNING.

SAT NIGHT...W WINDS 5 TO 15 KT. WIND WAVES 2 FT OR LESS. MIXED SWELL W 3 TO 4 FT AND S 3 TO 4 FT. PATCHY FOG AND DRIZZLE AFTER MIDNIGHT.

.SUN THROUGH MON...W WINDS 10 TO 20 KT. WIND WAVES 2 TO 3 FT. MIXED SWELL W 3 TO 5 FT AND S 2 TO 3 FT. PATCHY FOG. PATCHY DRIZZLE.

Digital Forecasts







Warning, Watch, & Advisory

Small Craft Advisory

- Wind 21 33 knots
- Seas 10+ feet
- Very Steep Seas

Gale Warning



Wind 34 – 47 knots

Storm Warning

Wind 48 – 63 knots

Hurricane Force Winds



Wind 64+ knots

Special Marine Warning

- Severe Weather
- Convective Winds 34+ knots
- Waterspout or Funnel Cloud

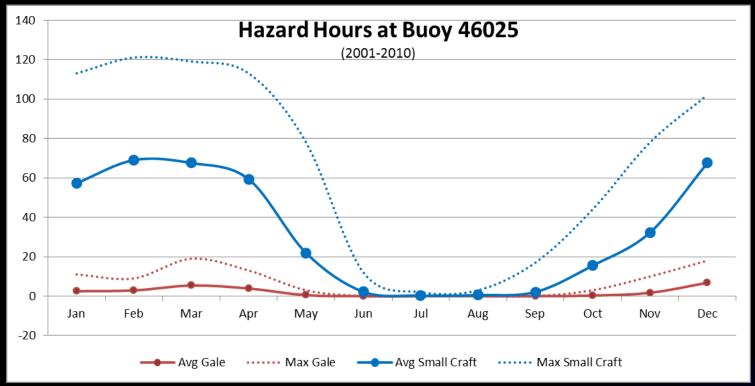
Marine Weather Statement

- Anything else
- Possibility of thunderstorms
- Extended (3-7 days) Outlooks
- Hazardous Spills
- Widespread Dense Fog
- Large Tides or Tsunami Info
- SMW Updates



Warning, Watch, & Advisory

How often do these hazards occur?



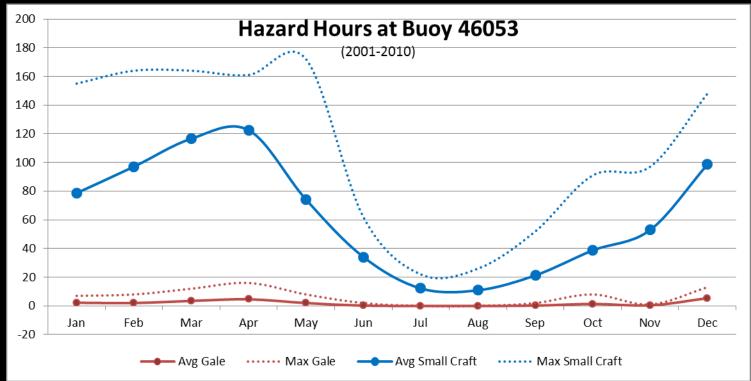
- Small Craft Advisories: Average 28 events/year lasting 14 hours (max 88 hours)
- Gale Warnings: Average 3 events/year lasting 6 hours (max 18 hours)
- Storm Warnings: 0

National Weather Service

- Wind Gusts >40kt 12 times from 2001-2010 (5 separate years)
- Max 44kt (April 28, 2010) Since 1987: Max 47.9kt (April 30, 1988)

Warning, Watch, & Advisory

How often do these hazards occur?



- Small Craft Advisories: Average 60 events/year lasting 13 hours (max 89 hours)
- Gale Warnings: Average 3 events/year lasting 6 hours (max 9 hours)
- Storm Warnings: 0
 - Wind Gusts >40kt 6 times from 2001-2010 (4 separate years)
- Max 42kt (Feb 11, 2003 East) Since 1994: Max 50.2kt (Jan 4, 1995 East)
 National Weather Service

Coastal Buoys & Observations

- ★ 8 NOAA NDBC Buoys
 - Wind, Wave, Air Temp, SST
- ★ 9 SCRIPPS Waverider Buoys
 - Wave & SST





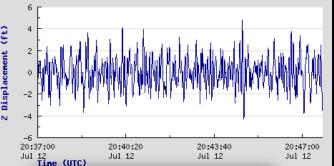


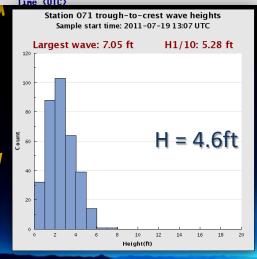


Wave Observations & Forecasts

- Wave surface very complex
- Wave Height Traditionally:
 - Average of highest 1/3 (33%)
 - A wave like this every 30 seconds
- Most waves are smaller, but bigger waves exist!
 - Highest 1/10 (10%): 1.3*H
 - A wave like this every 2 minutes
 - Highest 1/100 (1%): 1.7*H
 - A wave like this every 20 minutes
 - Max Wave: 2.0*H
 - A wave like this is possible!









^{*} Real-time plots are available from our webpage

Tidal Information

Network of Coastal Tide Gauges http://tidesandcurrents.noaa.gov/

| | | J | anı | ıary | | | | | | |
|----------------|---|--------------|-----------------------------|--|---|-----------------------|--------------------------------|---|----------------|---|
| | Time | Height | | Time | Height | | | | | |
| 1 Tu | h m 12:27 AM 05:15 AM 11:10 AM 06:12 PM | 3.7 1 2.3 | cm 113 70 143 0 | 16 01:06 AM W 06:56 AM 12:37 PM 07:00 PM | ft cm 4.4 134 1.7 52 3.9 119 0.6 18 | | | | | |
| 2 W | 01:05 AM 06:15 AM 11:56 AM 06:49 PM | 2.3 | 119 70 128 9 | 17 01:56 AM Th 08:20 AM 01:49 PM 07:44 PM | 4.4 134 1.7 52 3.2 98 1.2 37 | | | | | |
| 3 Th | 01:48 AM 07:32 AM 12:56 PM 07:30 PM | 2.2 | 125 61 11(2 | 18 02:51 AM 4.4 134 NOAA/NOS/CO-OPS Preliminary Water Level (A1) vs. Predicted Plot 9412110 Port San Luis, CA from 2011/03/10 - 2011/03/15 | | | | | | |
| | | | (Feet relative to MLLW) | 8.000 6.000 4.000 2.000 0.000 -2.000 | 1 | | | Marie de la companya della companya de la companya de la companya della companya | Marieman | Marine and |
| | | | | -8.000 -8.000 03/10 00:00 | 03/11 00:00 | 03/12 00:00 Dat | 03/13 00:00 e/Time (LST) | 03/14 00:00 | 03/15 00:00 | 03/16 00:00 |
| | | | | Pr | edicted WL | - Obse | rved WL —— | | (Obs-Pred) —— | |





Tsunami Program

National Tsunami Warning Center

Tsunami Warning

Palmer, Alaska http://ntwc.arh.noaa.gov

Danger! Widespread inundation with waves over 1 meter is imminent or occurring. Move to higher ground immediately!

Tsunami Advisory

Strong currents or waves of up to 1 meter are imminent or occurring. Move away from harbors and marinas.

Tsunami Watch

Potential tsunami which may later impact the area. Can be upgraded to a warning or advisory. Stay tuned.

Important Tsunami Facts:

- Tsunamis are a series of waves
- The largest waves are usually well after the initial arrival
- Tsunamis can last many hours or even days
- Local officials will give the all-clear when the threat has ended













weather.gov/losangeles



Social Media







Phone Services

her Service



NOAA Weather Radio

Available on most marine radios

- 4 Marine Transmitters
 - Ch 4 Malibu NEW!
 - Ch 7 Avalon
 - Ch 3 Santa Barbara
 - Ch 7 Hearst Castle
- 3 Land Transmitters
 - Ch 1 Mount Lukens
 - Ch 2 Santa Barbara
 - Ch 1 San Luis Obispo
- Additional Transmitters
 - Ch 5 Santa Ana Mtns







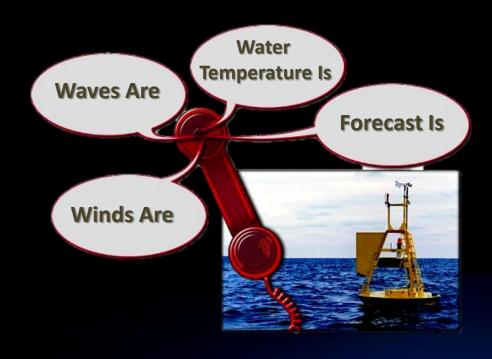


Phone Services

24 Hour Phone Line

805.988.6610 x1

Live Person Line 930am - 300pm 805.988.6610 x0



Dial – A - Buoy 888-701-8992



Web Page

www.weather.gov/losangeles **GO**



Hazards Map

- Easy starting point
- Colors show current hazards
- Click on the map to get forecast

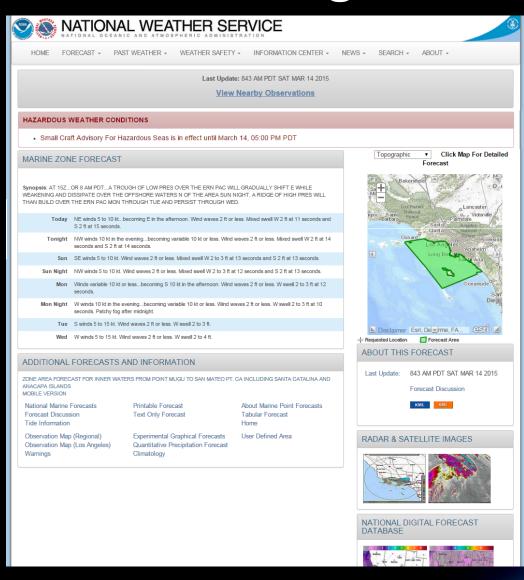


twitter.com/NWSLosAngeles



facebook.com/NWSLosAngeles

Web Page – Zone Forecasts



Highlights

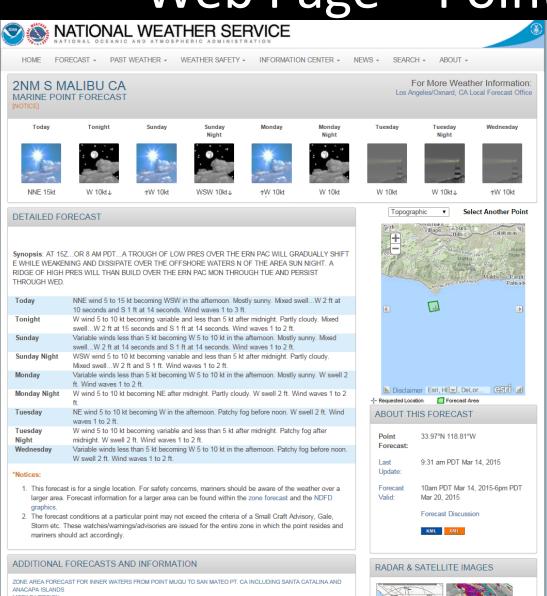
- 5 Day marine forecast
- Map shows area of forecast
- Links to active hazards
- Links to Satellite & Radar
- Links to Forecast Discussion
- Links to Graphical Forecast

Point Forecast Gateway

 Map is "clickable" to narrow down forecast area to specific point



Web Page – Point Forecast



Highlights

- Forecast for 1.5 square mile box
- Summary Icons
- Map still "clickable"

DISCLAIMER

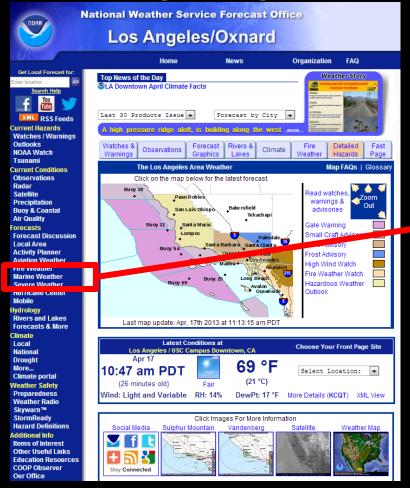
Forecasts over land also available

Now Including the Channel Islands

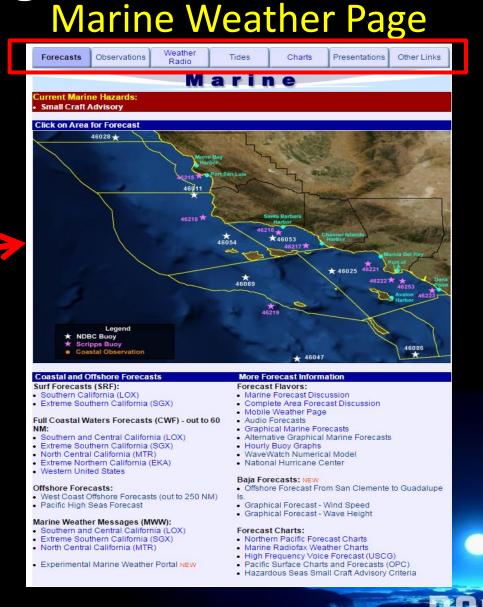


Web Page - Marine

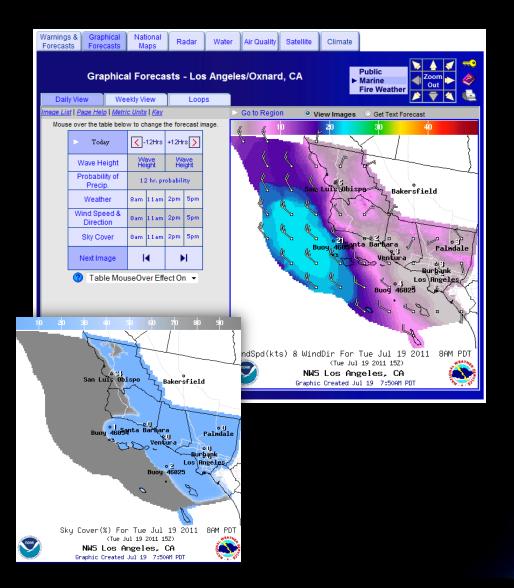
www.weather.gov/losangeles Go



Launching Pad to all thing marine

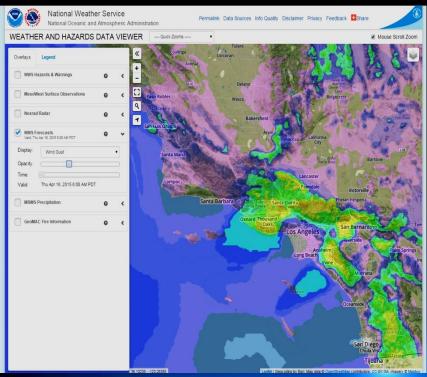


Web Page – Graphical Forecasts



Highlights

- Visually see the forecast
- Many elements available
 - Wind, Waves, Sky, Weather



Web Page – Forecast Discussion

Highlights

- Weather Blog from Forecasters
- Insight into what went into the forecast
- Confidence and other possible outcomes
- Specific Marine section at bottom
- Updated 4 times a day



.SHORT TERM (TODAY-MON)...

RECORD HEAT STILL ON COURSE TO PEAK TODAY OVER MOST OF THE AREA...AS STRONG HIGH PRESSURE ALOFT COMBINES WITH MODERATE OFFSHORE PRESSURE GRADIENTS. THE GRADIENTS ARE RUNNING A LITTLE STRONGER THAN COMPUTER PROJECTIONS WERE EXPECTING...AND ARE NOT MUCH DIFFERENT THAN 24 HOURS AGO. THE OFFSHORE WINDS FROM YESTERDAY HOWEVER ARE NON-EXISTENT...WITH ONLY A HANDFUL OF SITES EXPERIENCING NOTICEABLE WINDS. TYPICALLY THIS TYPE OF SCENARIO RESULTS IN AN APPRECIABLE WARMING TREND...BUT A FEW BANDS OF THICK HIGH-LEVEL CLOUDS...AND LIKELY BUT WEAK SOUTHERLY FLOW IN THE AFTERNOON WOULD SUGGEST COOLER CONDITIONS. WITH ALL THAT IN MIND...A MOSTLY PERSISTENCE FORECAST FOR THE COAST AND VALLEYS IS A GOOD CALL...WITH HIGH TEMPERATURES VERY SIMILAR TO YESTERDAY. CONFIDENT THAT MOUNTAINS AND INTERIOR VALLEYS ON THE OTHER HAND WILL SEE A HEALTHY WARMING TREND NOW THAT THE COLD AIR PUSHING OFFSHORE FLOW HAS WEAKENED SIGNIFICANTLY. MADE A FEW SMALL ADJUSTMENTS TO TEMPERATURES FOR TODAY...PRIMARILY WARMING UP THE CENTRAL COAST AND SANTA YNEZ VALLEY FROM WHAT WE HAD GOING TO MAKE THEM CLOSER TO YESTERDAYS NUMBERS.

.LONG TERM (TUE-FRI)...

FOR THE EXTENDED...00Z MODELS DO NOT INDICATE ANYTHING TOO EXCITING FOR THE AREA. UPPER LEVEL PATTERN SHOWS A WEAK TROUGH MOVING ACROSS THE WEST COAST ON TUESDAY...THEN TAKING UP RESIDENCE SOMEWHERE OVER THE GREAT BASIN WEDNESDAY THROUGH FRIDAY. CLOSER TO THE GROUND...IT DOES LOOK LIKE ONSHORE FLOW WILL ESTABLISH THROUGH THE WEEK.

&&

.MARINE...13/900 AM...

SMALL CRAFT ADVISORY CONDITIONS ARE NOT EXPECTED SAT THROUGH TUESDAY. A SOUTH SWELL WITHIN 170-190 DEGREES RELATIVE TO VENTURA COUNTY WILL CONTINUE TO SUBSIDE WHILE A WEST-NORTHWEST SWELL BUILDS BUT REMAINS WELL BELOW 10 FEET TODAY THROUGH SUNDAY. OTHERWISE A MIXED LOCALLY GENERATED NORTHWEST SWELL AND SOUTH SWELL IS EXPECTED MONDAY THROUGH TUESDAY.

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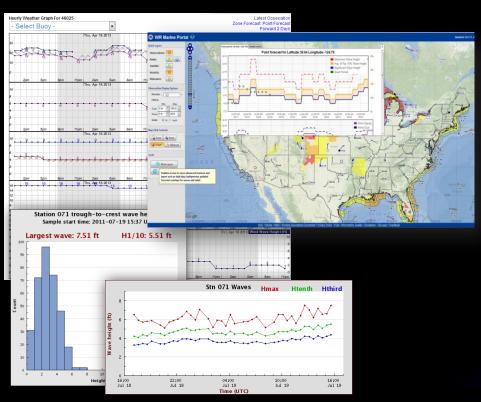
.LOX WATCHES/WARNINGS/ADVISORIES...
NONE



Web Page - Observations

Highlights

- Mouseover Map with observation popups
- Map "clickable" for observation history
- Links UCSD SCRIPPS displays





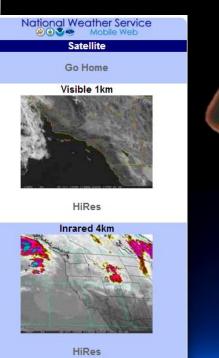
Web Page – Mobile

www.weather.gov/losangeles/mobile



Highlights

- Graphic Lite Version
- Easier to read on narrow screens
 - Fast loading



Interactive





Thank You!

National Weather Service

Los Angeles / Oxnard

Marine Weather Program

Ryan Kittell







